

No 14

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109 Spruce Ave Ducoing
exchanged with Mr Fox No 66
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Thesis.

on

The Primary seat of
Fever.

by

Charles Welling
of
Pennsylvania

Jan 11th 1828

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Sept. 11. 1878

Dear

The Bishop

Dear

Charles

Constance

On the Primary seat of Fever

The morbid affection of the body is of more frequent occurrence, more so extensively fatal, more about the nature of which more has been written, and yet (strange to say) even now, more more visited in obscurity than Fever. The nature of this disorder judging from the number and eagerness of the inquiries into it; would appear to have been considered the magnum opus, the Philosophers stone in medicine; but though the researches in pursuit of it, have been unintermitting they have established nothing decisively, so far at least as the prox-

imate cause and primary seat of Fever are concerned. Indeed many eminent men appear to have given up all expectation of such a discovery ever taking place; Jackson the author of the work on the Fever of Jamaica observes "The proximate cause of Fever is a subject of a dark nature, it is such, perhaps as our limited capacities will never develop."

The numerous theories of Fever, that have at different periods, ~~made~~ been promulgated and have held their sway, it will be unnecessary to recapitulate, it is sufficiently encouraging to know, that each succeeding one being based on an increased accumulation of facts and development of principles has been rather more

ditional than its predecessor, thus in-
spiring hopes that we are gradually
approaching the time, when this, this
difficult problem shall be solved to
the satisfaction of all. One great ad-
vance has been made by the adoption
of inflammation as the proximate
cause of P^{ain}, this point is at-
present conceded, and the contest is
when we shall locate our inflam-
mation in order to produce the fever,
the parties are divided into two.

Those who consider the brain as
the inflamed organ and others who
point to the stomach for its origin.

Let us compare the symptoms of
inflammation of the brain ~~with~~ with
those of fever; the first is evidenced
by "acute pain in the head, intolerance

of light and sound, cheeks permanently
 flushed, eyes red, watchfulness, delirium
 rapid pulse; "such are the symptoms of
 inflammation of the meninges of the brain
 when seat in the gland itself, it is
 marked by "obscure pain in the head
 cheeks irregularly flushed, pulse irreg-
 ular, frequent, eyes oblique, stupor
 heavy but unquiet, and occasionally
 interrupted by screams". Fever is mani-
 fest according to one of the advocates
 of the identity of the cause of both
 affections by "languor insensibility of the
 extremities, blindness and insensibility,
 pain in the back. Horripilation, pain
 in the fore head, delirium, anxiety-
 nausea and vomiting." When the fever
 is ~~high~~ ^{high} ~~pyrexia~~ the stupor is greater
 and it resembles more the paranechyma

inflammation; it must be confessed that
there are many symptoms in common,
but with this difference, in the one can
be caused by the presence of disease in the
sympathetic part, in the other by sympa-
thy; to confirm this let us adduce a
disease producing all these symptoms
of disease present in the head, but in
which it is allowed on all sides that
it is only sympathetically affected;

In worms for instance, when situated
either in the stomach or upper part
of the alimentary canal the symptoms are
headache, vertigo, disturbed dreams,
stomach broken off by fright, screaming,
feverishness, hotness, nausea, and the
other symptoms a hot skin with alter-
nate rigors, and hard corded pulse, and
as far as symptoms go you have

a fever, but it so happens, that the
 symptoms that are wanting to enable
 worms ^{to} grasp muscles for idiopathic
 fever, are by Dr. Clark established the great
 champion of brain fever not considered
 pathognomonic signs; by him pain
 in the head, languor, weakness in the
 extremities, are thought the marks of
 fever, in fact as head and stomach
 are both affected, he takes all the
 evidence of disordered brain and saying
 there are the true pathognomonic symptoms
 deduces very naturally to the satisfaction
 of all who with great promises
 that the disease is located in the
 brain, his words are "The characters
 which serve especially to distinguish
 fever from the other diseases are to be
 sought for in the functions of the

of the sensorium, the disturbed state of
which furnishes the only true diagnostic
symptoms," he observes "that disorder
vascular action and increased heat cannot
be considered pathognomonic marks" I
ask why "because it is secondary, common
to ordinary inflammation" but is not
disturbance in the sensorium common
to disorders noted in the prima via
and a constant accompaniment of some
when they prevail with a certain degree
of intensity: In worms referred to be-
fore the symptomatic affection of
the head is one of the most pain-
ful and troublesome affections it would
appear ^{never} that this reason of commonness
is not a sufficient one for excluding
all other except sensorial symptoms
since it might be urged against them

equally with the other. The claim of
rigor and increased pulse to be considered
pathognomonic symptoms being vindicated
let us examine how this can be
explained on the supposition of an
inflamed brain being the cause of
fever, it would seem that this can-
not be accounted for on this supposition
and for a good reason rigor is not
caused by inflamed brain according
to the symptoms before enumerated
the increased pulse is, but the order of
symptoms is equally diagnostic with
the existence of them, and preceding
rigor followed by increased pulse is the
established order of symptoms in fever
it is not so in inflamed brain. There
is no preceding rigor. let us now apply
the opposite supposition of gastric irritation

in the first place, and the brain sympathetically
affected after that irritation has reached
a certain degree of excitement; this will
account for the gaze; the internal ir-
ritation withdraws the blood from the
surface to the internal viscera, the
blood thus suddenly abstracted from the surface
deceases, and renders its demand on the brain
^{for nervous fluid} ~~smaller~~ less, and this state of life under
frost causes the sensation of rigor and
chilliness; but the increased flow of blood
to the centre augments the unpleasantness
of the viscera, this is reported to the
brain, which communicates an
increase of innervation (which always
is the case when the brain is excited
not congested) this excites the action of the
heart, the pulse rises, the blood is driven
by the heart to the surface causing a flush

of heat, a depression takes place & the
 skin and health is often restored, and
 I suppose to be the course in the slight-
 est attack of that disorder we call
 fever, such as intermittents, why
 in this it continues to be treated with
 intervals of apparent health is still
 a mystery, But as the supporters of the
 Brain Fever adduce most of their
 argument from fact which occur-
 ret in intermittents but in magis-
 tant fevers etc we shall now examine
 them. all the authorities brought forward
 testify to the existence of great cerebral
 disturbance, and that of by no means
 a mere sympathetic kind, on the
 contrary great lesion has been proved
 in post mortem examination, but they
 likewise speak of the stomach as being

disorder in the highest degree; of whom
this testimony only proves that in highly
malignant fever both brain and stomach
are affected; what is the primary
seat of disease remains to be ascertain-
ed, and I think may be best ascer-
tained by observing what means nature
employs, when she works her own cure
and what organs the curative means
employed run more peculiarly adapted
to relieve. Dr. Ross speaking of the malign-
ant fever of Jamaica says amongst other
symptoms the ^{head} was extremely affected
but he observes that the disease was often
cut short by copious bilious evacuation
upward, and downward, thus directly re-
lieving the stomach and leading us
naturally to suppose that this accumu-
lation of acid bile caused all the

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disturbance in the head: In the Plague which
raged at Cracow in Poland there was
indefatigable headache and delirium in
fact all Dr. Cullen's essential symp-
toms, but when copious sweats broke
out spontaneously, a defunction directly
relieving the abdominal viscera, the
rue was relaxed; Dr. Sims speaking
of a low fever that occurred in Poland
says that it was often carried off by
a diarrhoea, in this kind that all
the means exerted by nature in fevers
are those which directly unload the
stomach and bowels; we are therefore
knowing the simplicity and directness
with which nature always acts for the
attainment of her purposes & presume
that the organ upon which she acts directly
is the one in need of aid, and not

that she has after a round one for
the purpose of indirectly opposing reason
to the demand part; and runs
the conclusion to be drawn from the
operation of nature, let us see if
the means adopted & are confirmed it-

Dr Meigs says speaking of the Jamaica
Jew "that the men against strangers
in proportion as they were dilute and
purged." Mr Bayne speaking of a malignant
Jew which appeared on board an East-Indiaman
says "that when low delirium, nervous tremors
fainting seemed to indicate the greatest
debility; after several copious and extensive
venial evacuations ground & purging the
threatening symptoms went off easily.

Dr Jackson in his remarks on yellow
Jew observes "Persons who enter into the
apartments of those who are ill of the

Never surely fail to experience unpleasant
 sensations at stomach in distension,
 not unfrequently uneasiness in the bowels
 head ache, heat, pain in the eyes; then
 beginning of the morbid action local
 may be in the most part removable
 by the application of remedies that
 act locally, that is emetics, purga-
 tives or others which produce decided
 changes in the secreting surfaces
 of the alimentary canal. Dr Cullenbach
 would say I also think purgative amongst
 the most valuable remedial means; on
 what principle do they relieve an inflamed
 brain? he would say on that of secretion
 Granting this to be correct it follows that
 the more powerful the secretion the
 more beneficial the effects; consequently
 on this theory the most harsh and ~~rough~~ ^{rough}

operating purgatives ought to be given
but they are not. Why? because experience
teaches that harsh, strong purgatives
are injurious. Bristle shows that
when given too early they induce delirium
the very symptom they ought to relieve
according to the revulsion theory. so must
for purgatives, emetics peculiarly con-
ducive to the service of unloading the
stomach by vomiting and producing
relaxation of the skin are highly useful,
such is the voice of experience but
they ought to be directly trustful on
the brain theory and Dr. Cadmus, is-
sues only "In say, from theory the use
of emetics in fever might be deemed
improper and even dangerous," ~~the~~
Thus find the artificial means of cure
lead us to form the same conclusion

That the natural effort disposes us to
 vomit, since we find more ^{as} uniform
~~in the former~~ unloading the stomach, ^{directly} with the exception
 of general bleeding, which may be
 considered as equal unloading than
 vicious ~~in~~ ^{with} the brain.

Such are some of the objections that
 may be urged in opposition to the
 Brain Theory of Fever, objections
 which were not only to invalidate
 that supposition, but tend strongly to
 support the opposite idea of the
 Stomach being the primary seat of
 disease —

